## Abstract

5

The present invention provides methods and systems for running reactions, in particular, biological reactions and assays, in a Rayleigh-Bénard convection cell. The utilization of Rayleigh-Bénard convection principles for conducting biological or biochemical reactions is a novel application. In order to use Rayleigh-Bénard convection for conducting biological or biochemical reactions it is necessary to create a temperature differential in a solution of reactants.